

Test report

Nr. 09153

Outgassing of thermal insulation materials in solar-thermal flatplate collectors with antireflective coated glass

ordered by :

FIBRAN S.A
6 km Thessaloniki – Oreokastro
A.C. 56010, P.O.Box: 40306
Thessaloniki, Greece
represented by Mrs. Stella Chadiarakou

Manufacturer :

FIBRAN S.A
6 km Thessaloniki – Oreokastro
A.C. 56010, P.O.Box: 40306
Thessaloniki, Greece

Designation of the test sample:

Geolan H-050

Description of the sample :

mineral wool
no coating
specific weight = 60 kg/m³ *
Thickness approx = 40 mm *
(*=measured by SPF, **= from customer)



Photo of the test sample

Test temperature :

220°C

Test date :

Beginning at 30.4.2009, according to test instruction , see www.solarenergy.ch

Evaluation :

The tested mineral wool Geolan H-050 (delivery 23.4.2009) is suitable for single glazed, ventilated solar thermal flat plate collectors with antireflex glass with stagnation temperatures up to 220°C. No visible condensate precipitation and little performance changes are to be expected, .

Limitation of liability :

The use of our services occurs generally at one's own risk. SPF is not responsible for damages, caused by the use of this test report and the included informations.

Rapperswil, 18.8.2009


Felix Flückiger

Appendix to Test report No. 09153

Results in detail :

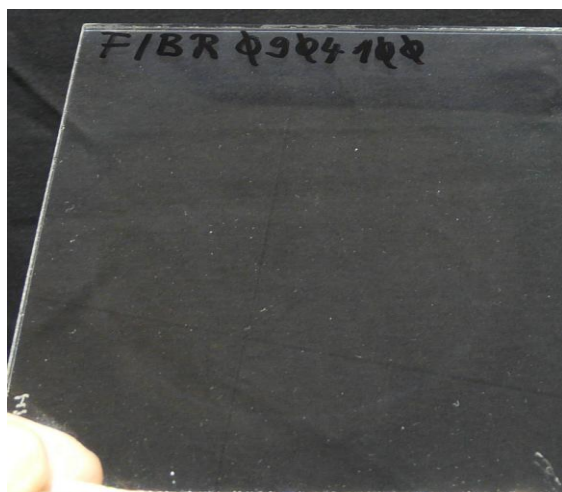
The mineral wool plate Geolan H-050 (delivery 23.4.2009) is not leading to visible precipitation at the condensation trap (see following pictures).

The change of the solar transmission is within the acceptable range (that means less than 0.015; see following table and diagrams).

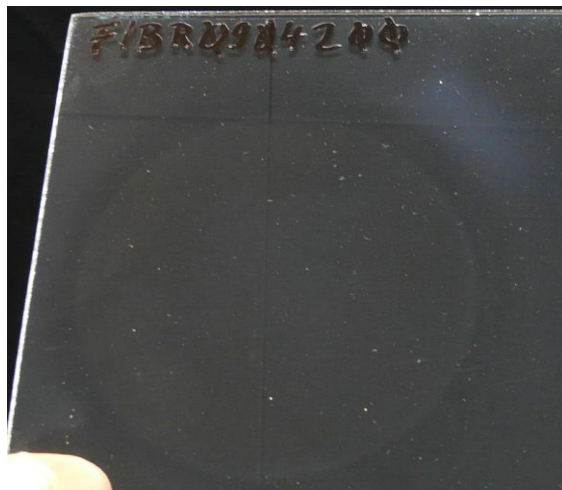
sample	solar transmission		
	referenz	after exposition	change
1	0.930	0.921	-0.009
2	0.930	0.926	-0.004

Table 1 : measurements of solar transmission

Pictures of the condensation trap after 150h @ 220 °C :



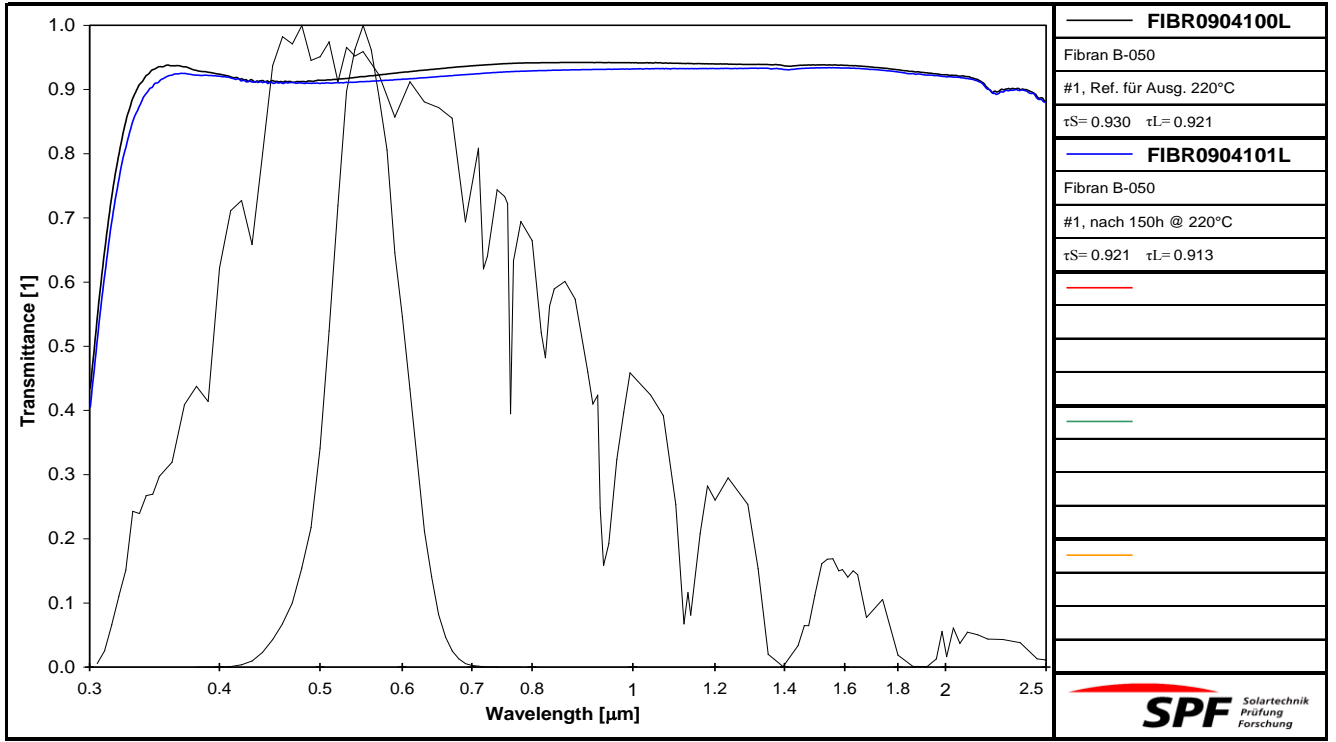
Sample 1 :



Sample 2 :

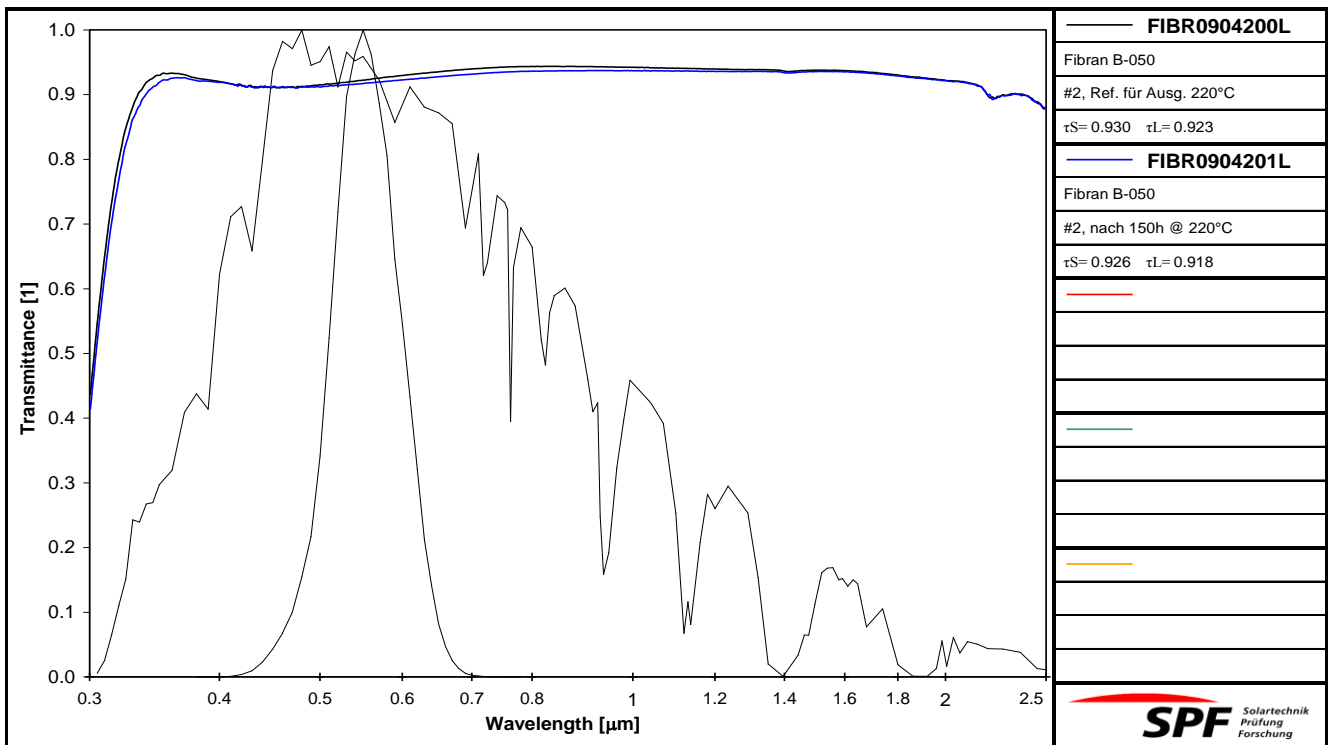
Spectral transmittance of the condensation trap, before and after testing

Fibran Geolan B-050, Anl.23.4.9 , Sample 1



Rapperswil, den 18.Mai 2009

Fibran Geolan B-050, Anl.23.4.9 , Sample 2



Rapperswil, den 18.Mai 2009